

NOT RECORDED  
31 AUG 2004  
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

NEIDLE, S. et al.

Atty. Ref.: 620-320

Serial No. 10/501,474

Group: Unassigned

Filed: July 14, 2004

Examiner: Unassigned

For: THERAPEUTIC ACRIDONE AND ACRIDINE  
COMPOUNDS

\* \* \* \* \*

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

August 31, 2004

Sir:

**INFORMATION DISCLOSURE STATEMENT**

- ☒ 1. **PTO-1449 Pursuant to 37 CFR 1.97(b)**  
[within 3 months of filing or prior to 1st Office Action on the merits]  
N/C
- ☐ 2.(a) **Statement Pursuant to 37 CFR 1.97(c)**  
[before Final Office Action or Allowance (requires Rule 97(e)  
Statement or Rule 17(p) fee)]  
N/C
- ☐ 2.(b) **Fee Payment Pursuant to 37 CFR 1.97(c)**  
[before Final Office Action or Allowance (requires Rule 97(e)  
Statement or Rule 17(p) fee)]  
\$180.00
- ☐ 3. **Pursuant to 37 CFR 1.97(d)**  
[after Final Office Action or Allowance (requires Rule 97(e)  
Statement and Rule 17(p) fee), but before final fee payment]  
\$180.00

The following are submitted in the above-identified application in compliance with  
37 C.F.R. §§ 1.97 and 1.98:

- ☒ 4. A list of documents on Form PTO-1449 together with copies of each identified document and a translation or a concise explanation of each non-English language document (such as a Search Report) is enclosed herewith.

This paper is submitted in accordance with:

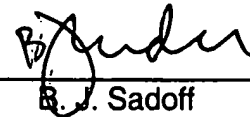
- ☒ 5. 37 CFR 1.97(b): [within 3 months of filing or prior to 1st Office Action]
- ☐ 6. 37 CFR 1.97(c): [before Final Office Action or Allowance, whichever is earlier]; and
- ☐ a) The required Statement made in item 8 below; or
- ☐ b) The \$180.00 fee specified in 37 CFR §1.17(p) for submission of this Information Disclosure Statement is authorized in item 9 below.
- ☐ 7. 37 CFR §1.97(d): [after Final Office Action or Allowance (requires Rule 97(e) Statement and Rule 17(p) fee), but before final fee payment]; and
- ☐ a) The fee (\$180.00) required by 37 CFR §1.17(p) is submitted herewith; and
- ☐ b) The required Statement is stated in item 8 below.
- ☐ 8. Statement under 37 CFR 1.97(e)
- ☐ a) The undersigned attorney of record hereby certifies under 37 C.F.R. §1.97(e) that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement (each item contained in this IDS was the first citation of that item by a foreign patent office in a counterpart foreign application which occurred no more than three months prior to the filing of this IDS); or
- ☐ b) No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this Statement, after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

NEIDLE, S. et al.  
Serial No. 10/501,474

- ☒ 9. Please charge all deficiency fees associated with the submission of this Information Disclosure Statement and any other fees applicable to this application to Deposit Account No. 14-1140. An original and one (1) copy of this document are enclosed.

Respectfully submitted,  
NIXON & VANDERHYE P.C.

By:



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**U.S. PATENT DOCUMENTS**

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**FOREIGN PATENT DOCUMENTS**

DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
					YES	NO
WO 02/08193 A1	01/2002	WIPO			X	
DE 488 890	01/1930	Germany			Abstract	

**OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)**

Nh	Alberti, P., et al., 2002, "Benzoindoloquinolines Interact with DNA Tetraplexes and Inhibit Telomerase," <u>Biorganic &amp; Medicinal Chemistry Letters</u> , Vol. 12, pp. 1071-1074.
Nh	Autexier, C., 1999, "Telomerase as a Possible Target for Anticancer Therapy," <u>Chemistry &amp; Biology</u> , Nov. 1999, Vol. 6, pp. R299-R303.
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Nh	Bostock-Smith, C.E., et al., 1999, "Molecular Recognition between a New Pentacyclic Acridinium Salt and DNA Sequences Investigated by Optical Spectroscopic Techniques, Proton Nuclear Magnetic Resonance Spectroscopy, and Molecular Modeling," <u>Biochemistry</u> , Vol. 38, No. 21, pp. 6723-6731.
Nh	Cain, B.F., et al., 1974, "Potential Antitumor Agents. 14. Acridylmethanesulfonanilides," <u>J. Med. Chem.</u> , Vol. 17, No. 9, pp. 922-930.
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Nh	Cain, B.F., et al., 1976, "Potential Antitumor Agents. 19. Multiply Substituted 4'-(9-Acridinylamino)methanesulfonanilides," <u>J. Med. Chem.</u> , Vol. 19, No. 9, pp. 1124-1129.
Nh	Carrasco, C., et al., 2002, "Tight Binding of the Antitumour Drug Ditercalcinium to Quaduplex DNA," <u>ChemBioChem</u> , Vol. 3, pp. 1235-1241.
Nh	Corey, D.R., 2002, "Telomerase Inhibition, Oligonucleotides, and Clinical Trials," <u>Oncogene</u> , Vol. 21, pp. 631-637.
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Examiner	Date Considered
	10-27-05

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Form PTO-FB-A820 (Also PTO-1449)

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NH	Goldstein, H., and de Simo, M., 1927, "Quelques derives de l'acide phenyl-anthranilique III," <u>Helv. Chim. Acta.</u> , Vol. 10, p. 603-606.
NL	Gomez, D., et al., 2002, "Detection of Telomerase Inhibitors Based on G-Quadruplex Ligands by a Modified Telomeric Repeat Amplification Protocol Assay," <u>Cancer Research</u> , Vol. 62, pp. 3365-3368.
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NL	Hagan, D.H., et al., 1997, "Antitumour Polycyclic Acridines, Part 1," <u>J. Chem. Soc., Perkin Trans. 1</u> , pp. 2739-2746.
NL	Hagan, D.H., et al., 1998, "Antitumour Polycyclic Acridines, Part 3," <u>J. Chem. Soc., Perkin Trans. 1</u> , p. 915-923.
NA	Harrison, R.J., et al., 1999, "Human Telomerase Inhibition by Substituted Acridine Derivatives," <u>Bioorganic &amp; Medicinal Chemistry Letters</u> , Vol. 9, pp. 2463-2468.
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NL	Julino, M., et al., 1998, "Antitumour Polycyclic Acridines, Part 5," <u>J. Chem. Soc., Perkin Trans. 1</u> , pp. 1677-1684.
NL	Kern, J.T., et al., 2002, "The Relationship between Ligand Aggregation and G-Quadruplex DNA Selectivity in a Series of 3,4,9,10-Perylenetetracarboxylic Acid Diimides," <u>Biochemistry</u> , Vol. 41, pp. 11379-11389.
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NL	Kim, N.W., et al., 1994, "Specific Association of Human Telomerase Activity with Immortal Cells and Cancer", <u>Science</u> , Vol. 266, pp. 2011-2015.
NH	Klopman, G., et al., 1987, "Computer-Automated Structure Evaluation of Antileukemic 9-Anilinoacridines," <u>Molecular Pharmacology</u> , Vol. 31, pp. 457-476.
NA	Korolev, B.A., et al., 1976, "Preparation of 2-Aminoacridan by the Reduction of 2-Amino-9-Acridanone with Diborane," <u>J. Gen. Chem. USSR (Engl. Trans.)</u> , Vol. 46, pp. 2250-2252.
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NR	Lorente, A., et al., 1996, "Syntheses of Imidazole-Acridine Conjugates as Ribonuclease A Mimics," <u>Tetrahedron Letters</u> , Vol. 37, No. 25, pp. 4417-4420.
NR	Matsumura, K., 1929, "The Synthesis of Certain Acridine Compounds," <u>J. Amer. Chem. Soc.</u> , Vol. 51, pp. 816-820.
NR	Mergny, J.-L., et al., 2002, "Natural and Pharmacological Regulation of Telomerase," <u>Nucleic Acids Research</u> , Vol. 30, No. 4, pp. 839-865.
NR	Moisan, M., et al., 1993, "New $\alpha,\omega$ -Diamido and $\alpha,\omega$ -Diamino Mono- and Di-Bridged Acridine Dimers," <u>Monatshefte fur Chemie</u> , Vol. 124, pp. 23-35.
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NR	Parkinson, G.N., et al., 2002, "Crystal structure of parallel quadruplexes from human telomeric DNA," <u>Nature</u> , Vol. 417, 20 June 2002, pp. 876-880.
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NR	Perry, P.J., et al., 1998b, "Human Telomerase Inhibition by Regioisomeric Disubstituted Amidoanthracene-9,10-diones," <u>J. Med. Chem.</u> , Vol. 41, No. 24, pp. 4873-4884.
NR	Perry, P.J., et al., 1998c, "Telomeres and Telomerase: Targets for Cancer Chemotherapy?," <u>Exp. Opin. Ther. Patents</u> , Vol. 8, No. 12, pp. 1567-1586.
NR	Perry, P.J., et al., 1999a, "Design, Synthesis and Evaluation of Human Telomerase Inhibitors Based Upon a Tetracyclic Structural Motif," <u>Anti-Cancer Drug Design</u> , Vol. 14, pp. 373-382.
NR	Perry, P.J., et al., 1999b, "2,7-Disubstituted Amidofluorenone Derivatives as Inhibitors of Human Telomerase," <u>J. Med. Chem.</u> , Vol. 42, No. 14, pp. 2679-2684.
NR	Read et al., 24 April 2001, "Structure-based design of selective and potent G quadruplex-mediated telomerase inhibitors," <u>Proceedings of the National Academy of Science</u> , Vol. 98, No. 9, pp. 4844-4849.
NR	Read, M.A., et al., 1999, "Molecular Modeling Studies on G-Quadruplex Complexes of Telomerase Inhibitors: Structure-Activity Relationships," <u>J. Med. Chem.</u> , Vol. 42, pp. 4538-4546.
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